HIGH EFFICIENT 3A UNIPOLAR STEPPER DRIVER

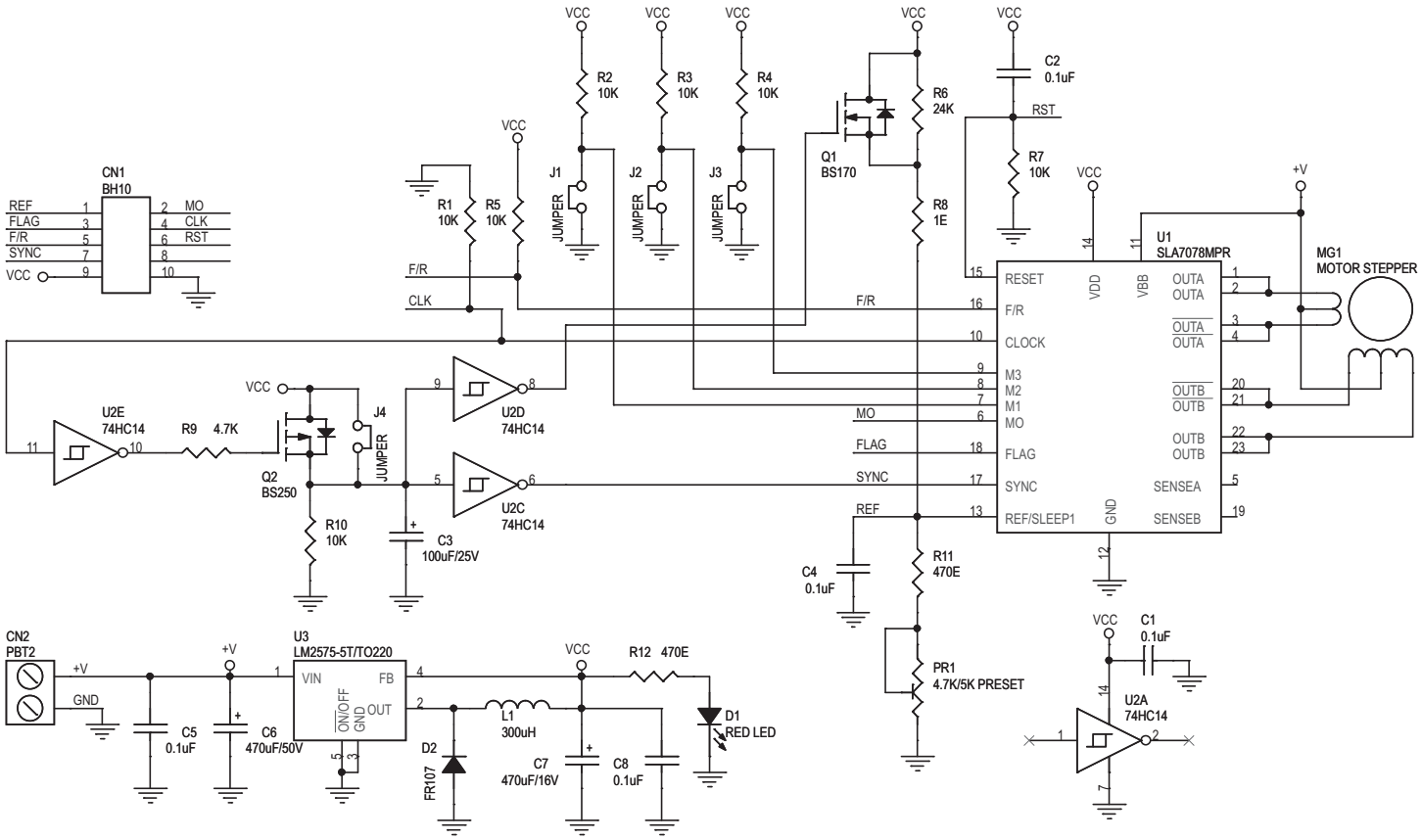
Unipolar stepper board is high efficient stepper driver for Unipolar stepper motor been design for various application like robotics, control routers, lathes, mills, PCB drillers and engravers.

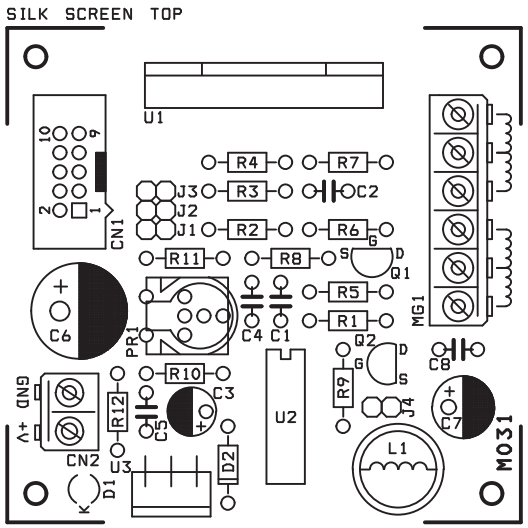
- **Step and Dir input via 10 pin box header connector**
- **Micro-stepping via on board jumper settings**
- **1/16th Micro-stepping possible**
- **Supply input and stepper connection via screw terminal connector**
- **Inbuilt fault protections in ic for over temp and short circuit**
- **Supply up to 36 VDC work with single supply no logic supply required**
- **Minimum supply 12 VDC Max 36 VDC @ 3 A**
- **Onboard DC-DC step down converter for logic 5 VDC supply**

SR.	QTY.	REF.	DESCRIPTION
1	1	CN1	10 PIN BOX HEADER CONNECTOR
2	1	CN2	2 PIN SCREW TERMINAL CONNECTOR
3	5	C1,C2,C4,C5,C8	0.1uF
4	1	C3	100uF/25V
5	1	C6	470uF/50V
6	1	C7	470uF/16V
7	1	D1	RED LED 3MM
8	1	D2	FR107
9	4	J1,J2,J3,J4	2 PIN JUMPER WITH CLOSER
10	1	L1	300uH
11	1	MG1	6 PIN SCREW TERMINAL CONNECTOR
12	1	PR1	4.7K/5K PRESET
13	1	Q1	BS170
14	1	Q2	BS250
15	7	R1,R2,R3,R4,R5,R7,R10	10K
16	1	R6	24K
17	1	R8	1E
18	1	R9	4.7K
19	2	R11,R12	470E
20	1	U1	SLA7078MPR
21	1	U2	7414 OR 74HC14
22	1	U3	LM2575-5T/TO220

J1 J2 J3	FULL/HALF STEP	MICRO-STEPPING
L L L	FULL STEP MODE MODE 8 FIXED	FULL STEP MODE
H L L	FULL STEP MODE F FIXED	FULL STEP MODE F FIXED
L H L	HALF STEP	HALF STEP
H H L	HALF STEP MODE F FIXED	HALF STEP MODE F FIXED
L L H	SLEEP 2 FUNCTS	QUARTER STEP
H L H		EIGHTH STEP
L H H		SIXTEENTH STEP
H H H		SLEEP 2 FUNTIONS

H= JUMPERS OPEN L=JUMPERS CLOSE
J4 NO USE KEEP IT OPEN





* J4 No use keep it open, driver been designed for direct use it will work with just step and clock pulses.

* MG1 Stepper motor unipolar max load current 3amps

* CN2 Supply input 36V Maximum

* CN1 Interface Pin1= External Reff, Pin2=Mo, Pin3=Flag, Pin4=CLK Pin5=Direction CW/CCW, Pin6=Reset, Pin7=SYNC,Pin9=5V VCC out Pin10=Ground

* D1 Power indicator

* Please read Data sheet carefully before assemble the kit IC has lots of features.